## ABSTRACT OF THE DISCLOSURE

An object of the present invention is to obtain an apparatus and a method for the detection of chemical agents which are suitable for detecting sulfur mustard and lewisite 1 and are satisfactory from the viewpoint of the speed of detection of chemical agents, the reduction of the rate of wrong information, the specification of the kinds of the chemical agents, and an unmanned continuous-monitoring apparatus. In the present invention, the detecting apparatus comprises a sample introduction section 1 into which a sample is introduced to be heated, an ionization section 2 in which the sample from the sample introduction section is ionized, a mass spectrometry section 3, and a computer 6 for data analysis. When predetermined signals characteristic of sulfur mustard or lewisite 1 are observed, it becomes possible to specify the sample.